



## WEEKLY OVERSIGHT REPORT

**CH2MHILL****Weekly Summary Report  
USEPA Oversight, Sauget Area 1, Sauget, IL  
WA No. 239-RSBD-054V / Contract No. 68-W6-0025****Week Ending Friday June 25, 2004**

This report summarizes the Remedial Investigation/Feasibility Study (RI/FS) fieldwork conducted by Monsanto, Solutia, and their contractors from June 19, 2004 through June 25, 2004 at Sauget Area 1 Sites. The current RI/FS work consists of a dense non-aqueous phase liquid (DNAPL) Characterization and Remediation Study. CH2M HILL provided field oversight of work throughout the week.

**Contractors Onsite**

- Golder Associates (consultant for Monsanto/Solutia)
- Bird Seismic Services Inc. (seismic survey fieldwork subcontractor to Resolution Resources Inc., who is subcontracted to Groundwater Services Inc. for the seismic survey and will perform all data evaluation)
- Philip Environmental (subcontractor working at Site G to clear site for seismic survey)

**Work Performed This Week**

Bird Seismic Services Inc. (Bird) was onsite during the week conducting the Geophysical Survey at Sauget Area 1. This phase of work is part of Task 3 of the Groundwater Services Inc. (GSI) Work Plan for the DNAPL Characterization and Remediation Study. The seismic crew worked six days throughout the week.

**Seismic Survey**

The three-dimensional seismic reflection survey is being conducted to map the bedrock surface and to identify topographic low points that could potentially enable DNAPL to accumulate.

The seismic survey consists of the following components:

- A shock grid is positioned on a 27½-foot grid spacing. Every point in the grid will be 'shocked' – that is, the energy-source (hammer) will be applied at each location on the shock grid when collecting data.
- A receiver grid is positioned on a 55-foot spacing. The receiver grid is the network of geophones (installed into the ground surface) connected by cables running east-west that will be used to listen and detect the response to the shocking of the ground surface with the hammer.
- The shock grid is initially laid out and marked with paint and flags, each row is incrementally numbered. Every third point in the shock grid is located using global positioning survey (GPS) technology. A base for the GPS unit was conventionally surveyed in relation to a local USGS survey monument.

- Cables are strung east-west across the receiver grid, connecting all the geophones. The cables are tied into three seismographs.
- The hammer, a truck-mounted 207 pound spring-recoiled hammer that hits a metal plate on the ground surface, is set to hit the plate fourteen times at each shock point. The seismographs simultaneously collect data when the energy source is applied at each shock point.
- Following collection of data, the cables and geophones are picked up and moved to the next survey section.

On June 19, Bird completed collecting data for the seismic survey at Site I, and at all locations north of Queeny Avenue.

On June 21, the crew completed marking the survey grid through all survey areas south of Queeny Avenue. The area south of Queeny Avenue is bounded by Falling Springs Road on the east, the south edge of Keeley property and the TSCA cell on the south, and extends up to and south of Wiese property on the west. This area will be surveyed in two separate arrays or segments; the area incorporates Site H, Site G, Site L, and part of Dead Creek. The grid was located at every third station with GPS.

Between June 22 and June 25, Bird installed the receiver grid of cables and geophones and collected data across the area extending from Falling Springs Road to approximately 100 feet east of Dead Creek. At the end of the week on June 25, Bird had finished collecting data in this segment, but work to pick up the cables and geophones in the area was not yet completed.

In areas where buildings or obstructions were within the footprint of the receiver grid, the cables were strung either over or around the building. Some geophone receiver locations could not be positioned due to obstructions. Similarly, not all stations on the shock grid were used as a point where energy was applied during the data collection due to access. Cables were strung across portions of Queeny Avenue as necessary, laid inside garden hose and taped to the road in order to protect the cables.

Philip Environmental was onsite at Site G on June 24 and 25, in order to clear the site for the seismic survey. Site G is covered by dense vegetation and many trees, some of significant size. Philip used two bobcats, chainsaws, and a backhoe to push down the vegetation, cut trees, and pull cleared vegetation out of the way. Paths were cleared east to west across Site G, following the 27½ -foot spacing of shock grid across the site.

### **Work Anticipated Next Week**

Bird anticipates that data collection for the seismic survey across Sauget Area 1 should be completed by the middle to end of next week. Pending the clearing of Site G, data will be collected in this area, across Dead Creek, and the surrounding areas south of Queeny Avenue. Additionally, Bird will complete the downhole surveys at the three existing bedrock wells at Sites H, G, and I next week.

Following the collection of all data from the seismic survey, the data package will be sent to Resolution for processing and evaluation.

Groundwater Services Inc. (GSI) plan on reperforming the NAPL measurements at well EE-11 located at Site G.

**Photos from June 19, through June 25, 2004:**



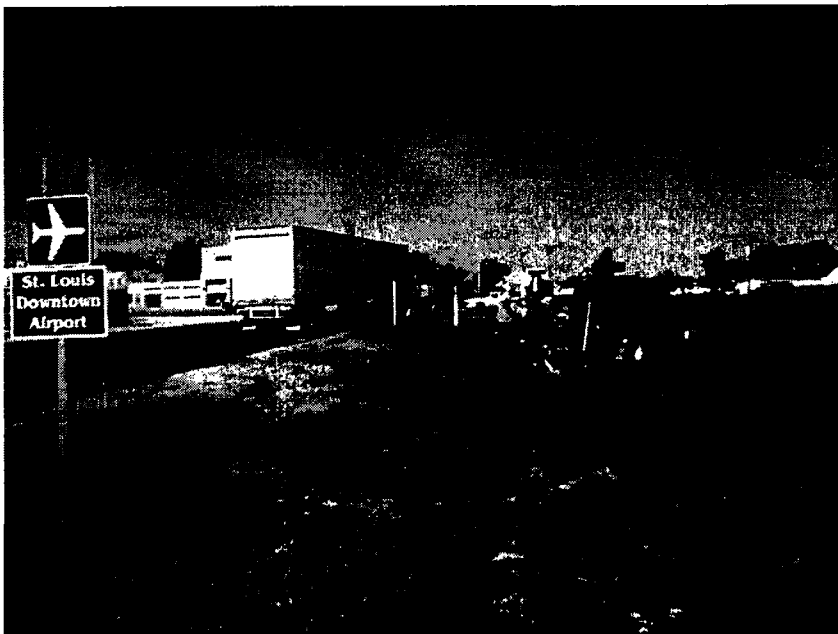
Bobcat clearing Site G in order to access site for seismic survey  
(June 24, 2004).



A cleared path at Site G for one survey grid row  
(June 24, 2004).



Cables for the receiver grid were strung around and through obstructions as necessary (June 24, 2004).



Collecting data at Site H adjacent to Queeny Avenue (June 23, 2004).